## 0029.000 PROTECTING WATER QUALITY DURING FACILITY CONSTRUCTION

Originator: James Matt and Edwin K. Swanson

Issue Date: December 21, 1994

Next Scheduled Review Date: December 21, 1995

#### PURPOSE

The policy statement and the items listed below are designed to protect water quality during construction and post construction activities of facilities in or near water courses. These policies are used in the certification of Federal Permits for projects in Arizona.

#### POLICY

Appropriate items as listed below should be included in specifications for construction and related activities in or near watercourses. Adherence to the cited procedures should assure compliance with Water Quality Standards for Navigable Waters, A.A.C. R18-11-1. Specifications should require the person responsible for the activity to submit a program for effective control of water pollution to the person in charge of the project which includes procedures for protecting water from pollution with fuels, oils, bitumens, calcium chloride, silt, cement, asphalt, tires, batteries, and other harmful materials, and for conducting and scheduling operations so as to avoid or minimize silting of the water.

Specific procedures for preventing water pollution may include:

- 1. Provision for temporary pollution control measures such as: dikes, basins, ditches, diversions, silt fences and the application of straw and seed, to be functional prior to land disturbing activities.
- 2. Erosion control measures including minimizing clearing and grubbing and limiting exposure of erodible surface to 750,000 square feet for each construction phase or location.
- Construction of footings in water by sheet pile cofferdam method and pumping water from within the dam to settling ponds before returning it to the water course.
- 4. Isolation of the construction area by dikes and/or berms.
- 5. Erection of barriers, covers, shields, and other protective devices as necessary to prevent any construction materials, equipment or contaminants/pollutants from falling or being thrown into a watercourse.
- 6. Construction of drainage facilities with armoring when

necessary to control erosion and sedimentation.

- 7. Provision of an adequate means, such as a bypass channel, to carry a stream free from mud and silt around operations which remove material from beneath a flowing stream.
- 8. A requirement for the transportation of materials across live streams to be conducted without muddying the stream. Mechanized equipment should not be operated in stream channels of live streams except as may be necessary to construct crossings or barriers and fill for channel modifications.
- 9. A requirement for wash water from aggregate washing or other operations containing mud or silt to be treated by filtration or retention in a settling pond, or ponds, adequate to prevent water from transporting sediment into streams or watercourses.
- 10. A requirement for oily or greasy substances originating from the contractor's operations not be placed where they will later enter a stream or watercourse.
- 11. Provisions for Portland cement or fresh Portland cement concrete not be allowed to enter flowing water of streams.
- 12. A requirement to return the flow of streams as nearly as possible to a meandering thread without creating a possible future bank erosion problem when operations are completed.
- 13. A requirement that material derived from roadway work should not be deposited in a stream or watercourse where it could be washed away by stream flows.

The person responsible for the activity should be required to monitor for turbidity every day in which there is a disturbance of the bed of the waterway. Monitoring should be performed not greater than 300 feet downstream from the construction or related operations and 100 feet upstream. Reports of turbidity measurements should be reported to the Arizona Department of Environmental Quality.

### RESPONSIBILITY

Responsibility for implementation of the policy lies with the Surface Water Quality Section.

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APPROVED BY:

Level Three

Water Quality Division

Arizona Department of Environmental

Quality:

Brian E. Munson

Director,

Date

Water Quality Division

Jack Bale

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Date

Surface Water Quality Section

The Policy Review Committee has posted, reviewed, and accepted this policy by motion as of December 21, 1994.

Susan Bentley-Johnston

Date

Recording Secretary